



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/925,397	08/09/2001	Yuan-Chi Chang	YOR9-2001-0287 (8728-514)	4473
46069	7590	10/17/2006	EXAMINER EHICHIOYA, FRED I	
F. CHAU & ASSOCIATES, LLC 130 WOODBURY ROAD WOODBURY, NY 11797			ART UNIT 2162	PAPER NUMBER

DATE MAILED: 10/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/925,397

Applicant(s)

CHANG ET AL.

Examiner

Fred I. Ehichioya

Art Unit

2162

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 September 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 20 - 39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 20 - 39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This action is responsive to communications: RCE and Preliminary amendments, both filed September 26, 2006 to the original application filed 08/09/01.
2. Claims 20 - 39 are pending in this Office Action.

### ***Continued Examination Under 37 CFR 1.114***

3. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 09/26/2006 has been entered.

### ***Priority***

4. If applicant desires to claim the benefit of a prior-filed application under 35 U.S.C. 119(e), a specific reference to the prior-filed application in compliance with 37 CFR 1.78(a) must be included in the first sentence(s) of the specification following the title or in an application data sheet. For benefit claims under 35 U.S.C. 120, 121 or 365(c), the reference must include the relationship (i.e., continuation, divisional, or continuation-in-part) of the applications.

If the instant application is a utility or plant application filed under 35 U.S.C. 111(a) on or after November 29, 2000, the specific reference must be submitted during

Art Unit: 2162

the pendency of the application and within the later of four months from the actual filing date of the application or sixteen months from the filing date of the prior application. If the application is a utility or plant application which entered the national stage from an international application filed on or after November 29, 2000, after compliance with 35 U.S.C. 371, the specific reference must be submitted during the pendency of the application and within the later of four months from the date on which the national stage commenced under 35 U.S.C. 371(b) or (f) or sixteen months from the filing date of the prior application. See 37 CFR 1.78(a)(2)(ii) and (a)(5)(ii). This time period is not extendable and a failure to submit the reference required by 35 U.S.C. 119(e) and/or 120, where applicable, within this time period is considered a waiver of any benefit of such prior application(s) under 35 U.S.C. 119(e), 120, 121 and 365(c). A benefit claim filed after the required time period may be accepted if it is accompanied by a grantable petition to accept an unintentionally delayed benefit claim under 35 U.S.C. 119(e), 120, 121 and 365(c). The petition must be accompanied by (1) the reference required by 35 U.S.C. 120 or 119(e) and 37 CFR 1.78(a)(2) or (a)(5) to the prior application (unless previously submitted), (2) a surcharge under 37 CFR 1.17(t), and (3) a statement that the entire delay between the date the claim was due under 37 CFR 1.78(a)(2) or (a)(5) and the date the claim was filed was unintentional. The Director may require additional information where there is a question whether the delay was unintentional. The petition should be addressed to: Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Art Unit: 2162

If the reference to the prior application was previously submitted within the time period set forth in 37 CFR 1.78(a), but not in the first sentence(s) of the specification or an application data sheet (ADS) as required by 37 CFR 1.78(a) (e.g., if the reference was submitted in an oath or declaration or the application transmittal letter), and the information concerning the benefit claim was recognized by the Office as shown by its inclusion on the first filing receipt, the petition under 37 CFR 1.78(a) and the surcharge under 37 CFR 1.17(t) are not required. Applicant is still required to submit the reference in compliance with 37 CFR 1.78(a) by filing an amendment to the first sentence(s) of the specification or an ADS. See MPEP § 201.11. Therefore, the amendment to the specification submitted May 8, 2006 to claim benefit of U.S. Provisional Application Serial No. 60/246,052 is not proper and will not be entered.

***Declaration Under 35 USC § 131***

5. The evidence submitted September 12, 2006 is insufficient to establish diligence from a date prior to the date of reduction to practice of the "MediaNet: A multimedia Information Network for Knowledge Representation", In Conference on Internet Multimedia Management Systems. Vol. 4210 (numbered Pages 1 – 12), Boston, MA, Nov. 2000, 1 ST/SPIE.00, Author: Ana B. Benitez et al" reference to either a constructive reduction to practice or an actual reduction to practice.
6. The following is a quotation of 35 U.S.C. 715.07(x) which forms the basis for diligence set forth in this Office action:

What is meant by diligence is brought out in *Christie v. Seybold*, 1893 C.D. 515, 64 O.G. 1650 (6th Cir. 1893). In patent law, an inventor is either diligent at a given time or he is not diligent; there are no degrees of diligence. An applicant may be diligent within the meaning of the patent law when he or she is doing nothing, if his or her lack of activity is excused. Note, however, that the record must set forth an explanation or excuse for the inactivity; the USPTO or courts will not speculate on possible explanations for delay or inactivity. See *In re Nelson*, 420 F.2d 1079, 164 USPQ 458 (CCPA 1970). Diligence must be judged on the basis of the particular facts in each case. See MPEP § 2138.06 for a detailed discussion of the diligence requirement for proving prior invention.

7. A general allegation that the invention was completed prior to the date of the reference is not sufficient. *Ex parte Saunders*; 1883 C.D. 23, 23 O.G. 1224 (Comm'r Pat. 1883). Similarly, a declaration by the inventor to the effect that his or her invention was conceived or reduced to practice prior to the reference data, without a statement of facts demonstrating the correctness of the conclusion, is insufficient to satisfy 37 CFR 1.131.

While conception is the mental part of the inventive act, it must be capable of proof, such as by demonstrative evidence or by a complete disclosure to another. Conception is more than a vague idea of how to solve a problem. The requisite means themselves

Art Unit: 2162

and their interaction must also be comprehended. See *Mergenthaler v. Scudder*, 1897 C.D. 724, 81 O.G. 1417 (D.C. Cir. 1897).

8. At page 2, paragraph 2 of the affidavit, the claimant states:

"Prior to November 6, 2000, we have conceived the claimed invention of the application. A Provisional Patent Application Serial No. 60/246,052 was filed on, November 6, 2000, with the USPTO. John R. Smith is the common inventor to the present application and the provisional '052 application. The '052 application as filed is attached herewith Exhibit A. The '052 application evidences our conception of the claimed invention prior to November 6, 2002, the date of the MediaNet reference."

9. The evidence submitted is insufficient to establish applicant's alleged actual reduction to practice of the invention in this country or a NAFTA or WTO member country after the effective date of the Benitez reference.

The following is a quotation of 35 U.S.C. 715.07 which forms the basis for the explanation of the affidavit set forth in this Office action:

The affidavit or declaration and exhibits must clearly explain which facts or data applicant is relying on to show completion of his or her invention prior to the particular date. Vague and general statements in broad terms about what the exhibits describe along with a general assertion that the exhibits describe a reduction to practice "amounts essentially to mere pleading, unsupported by proof or a showing of facts" and, thus, does not satisfy the requirements of 37 CFR 1.131(b). *In re Borkowski*, 505 F.2d 713, 184 USPQ 29 (CCPA 1974). Applicant must give a clear explanation of the exhibits pointing out exactly what facts are established and relied on by applicant. 505 F.2d at 718-19, 184 USPQ at 33. See also *In re Harry*, 333 F.2d 920, 142 USPC 164 (CCPA 1964) (Affidavit "asserts that facts exist but does not tell what they are or when they occurred.").

10. There was no indication as to which portions of Exhibit A of the affidavit are related to the various phrases in independent claims 20, 27 and 34 of the patent application. The elements of claims 20, 27 and 34 are not in Exhibit A. The applicant should provide a correlation on how various statements in the affidavit apply to these claims.

Art Unit: 2162

11. The claim of benefit of a provisional patent application serial No. 60/246,052 under 35 U.S.C. 119(e), is not in compliance with 37 CFR 1.78(a).

For these reasons, the "Affidavit Under 37 C. F. R. § 1.131" has been disallowed.

***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

13. Claims 20, 27 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Non-Patent Document: "Supporting Ranked Boolean Similarity Queries in MARS", IEEE Trans. on Knowledge and data Engineering, 10, Nov – Dec. 1998, Author: Ortega et al (hereinafter "Ortega") in view of Non-Patent Document: "MediaNet: A multimedia



Art Unit: 2162

Information Network for Knowledge Representation", In Conference on Internet Multimedia Management Systems. Vol. 4210 (numbered Pages 1 – 12), Boston, MA, Nov. 2000, 1 ST/SPIE.00, Author: Benitez et al (hereinafter "Benitez").

Regarding claims 20, 27 and 34, Ortega teaches a method for processing multimedia data in a computer system, comprising:

receiving as input a high-level concept describing data to be accessed (see section 1.2, page 4, paragraph 1, "A Boolean retrieval model (adapted for retrieval over images) is used to interpret the query ..... being able to support such conceptual queries is critical for the versatility of large image databases.", and section 2, "In this section, we briefly describe the image features used . . . Other image features are available , however we restrict ourselves to queries involving only to the above features in this paper.");

translating the high-level concept into a low-level query by using stored concept constructs which are defined using features derived from a plurality of application domains (see section 1.2, page 4, paragraph 1, "A Boolean retrieval model (adapted for retrieval over images) is used to interpret the query ..... being able to support such conceptual queries is critical for the versatility of large image databases.", and section 2, "In this section, we briefly describe the image features used . . . Other image features are available , however we restrict ourselves to queries involving only to the above features in this paper.").

Ortega does not explicitly teach transferring the low-level query to one or more search engines and concept repository.

Benitez teaches transferring the low-level query to one or more search engines to access information using the low-level query (see section 3, page 6, "Typical content-based retrieval systems indexed . . . or the value for any low-level features in the image database" and section 4.2, page 9, "At this point ..... and the results integrated into a unique list as described for visual queries"); and

a concept repository for storing and accessing the concept constructs (see Fig.4 and section 4.1, page 7, "For each application, the list of concepts and relationships in the MediaNet knowledge based should be representative of the content in the database and the goal of the application task.").

It would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine teaching of the cited references because Benitez's teaching of "transferring the low-level query to one or more search engines to access information using the low-level query" and "concept repository" would have allowed Ortega's system to integrate both conceptual and perceptual representations of knowledge to impact a broad range of applications that deal with multimedia content at semantic and perceptual levels. This improves the performance of multimedia retrieval applications by using query expansion, refinement and translation across multiple content modalities as suggested by Benitez (see Abstract).

Art Unit: 2162

14. Claims 21 – 26, 28 – 33, and 35 - 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ortega in view of Benitez and further in view of Non-Patent Document: "CAMEL: Concept Annotated image Libraries", In Storage and Retrieval for Image and Video Database, San Jose, CA, Jan. 2001. SPIE (numbered pages 1 – 12), Author: Natsev et al (hereinafter "Natsev").

Regarding claims 21, 28 and 35, Ortega teaches storing matching algorithms in a matching algorithm library module (see section 4.8, page 20 – section 4.8.3, page 25) and Benitez teaches storing the concept constructs in a concept library module (see Fig.4 and section 4.1, page 7, "For each application, the list of concepts and relationships in the MediaNet knowledge based should be representative of the content in the database and the goal of the application task.").

Ortega or Benitez does not explicitly teach storing the features in a feature library module; and storing constraints in a constraint library module.

However, Natsev further teaches storing the concept constructs in a concept library module (see section 1.2, "The concept cataloguing, or learning, phase is used to define visual concepts and build a concept library. Concepts are defined . . . . The concept library is module for a persistent storage of concepts");

storing the features in a feature library module (see fig.3); and

storing constraints in a constraint library module (see section 6, "Another improvement that we are considering is the introduction of spatial constraints in the query engine. For example, . . . , the corresponding document is ranked higher").

It would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine teaching of the cited references because Natsev's teaching of storing the concept constructs in a concept library module, storing the features in a feature library module and storing constraints in a constraint library module would have presented a new direction for improving current image query system, namely focusing the query specification part as gateway to better performance and usability (see Natsev section 6) for the combination Ortega and Benitez's system.

Regarding claims 22, 29 and 36, Natsev teaches interfacing the library modules to the application domains (see fig.3 and section 4, "Fig.3 illustrates the architecture of the ..., as well as the Concept Library module").

Regarding claims 23, 30 and 37, Natsev teaches building a concept construct (see fig.1 and section 1.2, The concept cataloguing, or learning, phase is used to define visual concepts and build concept library. Concepts are defined . . . and to associate it with the given concept").

Regarding claims 24 and 31, Natsev teaches a method as defined in Claim 23, wherein the step of building a concept construct comprise combining one or more of the features with see section 1.2, The concept cataloguing, or learning, phase is used to define visual concepts and build concept library)

zero or more of the stored concept (see Fig.1 and section 1.2, "The concept library is a module for persistent storage of concept"). and

zero or more of the constraints (see section 6, "Another improvement that we are considering is the introduction of spatial constraint in query engine").

Regarding claims 25 and 32, Ortega teaches a concept construct is represented using a hierarchical fuzzy graph data tree-structure comprising: nodes that correspond to child-concepts and a subset of the features; aggregation edges that correspond to parent-child relationships; and association edges that correspond to inter-sibling constraints (see sections 4.1 and 4.2, pages 10 and 11).

Regarding claims 26 and 33, Natsev teaches a method as defined in Claim 20, wherein the features are user defined (see section 2, "One of the most commonly used image features is color histogram, . . . places the burden on the user to specify weights for the different features").

Regarding claim 38, Natsev teaches a system as defined in Claim 34, wherein the translation engine further comprises an interpreter that translates the high level concept (see fig.1).

Regarding claim 39, Natsev teaches a system as defined in Claim 34, further comprises a search engine (see section 2, "the high-level approach that . . . , there are some considerations that make certain query engines more suitable than others").

**Conclusion**

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred I. Ehichioya whose telephone number is 571-272-4034. The examiner can normally be reached on M - F 8:00 AM to 4:30 PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene can be reached on 571-272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Fred I. Ehichioya  
Patent Examiner  
Art Unit 2162



October 12, 2006



SHAHID ALAM  
PRIMARY EXAMINER